* ORGANIC SOILS WITHIN SOUTH EXPANSION PHASES 1-3 AND SOUTHEAST EXPANSION PHASES 6-8 WERE EXCAVATED PRIOR TO CONSTRUCTION OF LINER.

USCS CLASSES

GRAVEL, WELL GRADED, LITTLE OR NO FINES

GRAVEL, POORLY GRADED, LITTLE OR NO FINES

SILTY GRAVEL

GC CLAYEY GRAVEL

SAND, WELL GRADED, LITTLE OR NO FINES

SAND, POORLY GRADED, LITTLE OR NO FINES

SP-SM SAND, POORLY GRADED WITH SILT SILTY SAND

SC CLAYEY SAND

CL-ML SILTY CLAY CL LEAN CLAY

CH FAT CLAY

OL ORGANIC SILT OR CLAY, LOW PLASTICITY

ORGANIC SILT OR CLAY WITH HIGH PLASTICITY

PT

SYMBOLS AND TEST RESULTS

PLASTICITY INDEX

NON-PLASTIC

ORGANIC CONTENT (%)

MOISTURE CONTENT (%)

LABORATORY VERTICAL HYDRAULIC CONDUCTIVITY (cm/sec)

FIELD HORIZONTAL HYDRAULIC CONDUCTIVITY (cm/sec)

PERCENT GRAVEL, SAND, SILT, AND CLAY

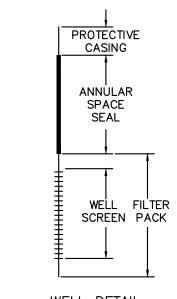
PERCENT GRAVEL, SAND, AND SILT PLUS CLAY

GROUNDWATER ELEVATION ON 4/4/11

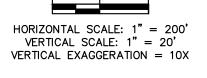
———— WATER TABLE (SEE NOTE 5)

(FEET ABOVE MEAN SEA LEVEL)

————— CONTACT BETWEEN MAJOR GEOLOGIC UNITS (DASHED WHERE INFERRED) — — BEDROCK SURFACE (SEE NOTE 6)



WELL DETAIL WELL CONSTRUCTION SHOWN FOR ACTIVE WELLS ONLY, AS OF APRIL 2011.



- 1. THE DRAWING WAS DERIVED FROM SCS ENGINEERS DECEMBER 2010 GLACIER RIDGE SOUTHEAST EXPANSION FEASIBILITY REPORT WITH THE FOLLOWING MODIFICATIONS: PROPOSED FINAL GRADES AND HIGH WATER TABLE MAP GROUNDWATER SURFACE.
- 2. LINES CORRELATING STRATA ARE BASED ON INTERPOLATION BETWEEN BORINGS AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
- 3. FOR A DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT INDIVIDUAL BORINGS OR COMPLETE MONITORING WELL CONSTRUCTION INFORMATION, REFER TO THE BORING AND MONITORING WELL INFORMATION APPENDIX.
- 4. ELEVATIONS ARE SHOWN IN REFERENCE TO THE USGS MEAN SEA LEVEL
- 5. WATER TABLE SURFACE SHOWN BETWEEN BORINGS BASED ON THE HIGH WATER TABLE MAP SHEET 4 OF 24, (APRIL 4, 2011).
- 6. THE BEDROCK SURFACE ILLUSTRATED ON THE CROSS SECTIONS IS INFERRED AND IS BASED ON THE TOP OF BEDROCK MAP, SHEET 18 OF 24.
- 7. MW408, P408A AND P401D WATER LEVELS WERE NOT MEASURED DURING APRIL 2011. RECORDED WATER LEVELS ARE THEREFORE FROM APRIL 9,
- 8. THE EXISTING GROUND SURFACE AND PROPOSED FINAL GRADES OF THE
- VERTICAL EXPANSION ARE BASED ON INFORMATION PRESENTED ON SHEETS 3 AND 22, RESPECTIVELY.
- 9. THE WATER TABLE SURFACE SHOWN ON THE CROSS SECTION IS BASED ON CONDITIONS PRIOR TO THE INSTALLATION OF THE GRADIENT CONTROL AND/OR UNDERDRAIN SYSTEMS OR FEATURES UNDER THE SOUTHEAST EXPANSION. THE GROUNDWATER GRADIENT CONTROL SYSTEM WAS
- OPERATIONAL UNDER THE SOUTH EXPANSION PHASES 1A, 2A, AND 3A AT THE TIME OF THE DEPICTED WATER LEVELS. THE WATER LEVEL MEASURED AT GRADIENT CONTROL MONITORING POINT GCM-1 UNDER PHASE 1A OF THE SOUTH EXPANSION WAS 930.56 FEET ABOVE MEAN SEA LEVEL (AMSL) IN APRIL 2011. THE GROUNDWATER ELEVATION AT MONITORING POINT GCM-1 HAS AVERAGED 929.9 FEET AMSL FROM SEPTEMBER 2006 THROUGH APRIL 2018.

GENERAL DESCRIPTION OF MAJOR GEOLOGIC UNITS:

UNCONSOLIDATED DEPOSITS

GENERALLY BLACK PEAT (PT), FIBROUS TO WEATHERED, WITH MINOR AMOUNTS OF ORGANIC SILT (OL) AND/OR CLAY (OH) DEPOSITED IN WETLANDS. GLACIOLACUSTRINE SEDIMENTS

GENERALLY GRAY OR DARK GRAY SILT AND CLAY (CL, CL-ML, ML), DEPOSITED

IN A GLACIAL LAKE ENVIRONMENT. INCLUDES DISCONTINUOUS LENSES OF GLACIOFLUVIAL SAND AND GRAVEL.

GENERALLY BROWN OR GRAY SILTY, SANDY DIAMICTON (SM, GM, ML) DEPOSITED BY OR FROM GLACIAL ICE AS BASAL TILL. INCLUDES DISCONTINUOUS LENSES OF SAND AND SILT/CLAY. TWO TILL UNITS MAY BE PRESENT, INCLUDING THE HORICON MEMBER OF THE HOLY HILL FORMATION AND AN OLDER TILL THAT IS DENSE AND GRAYER IN COLOR. THE LOWER TILL IN SOME LOCATIONS

GLACIOFLUVIAL SEDIMENTS

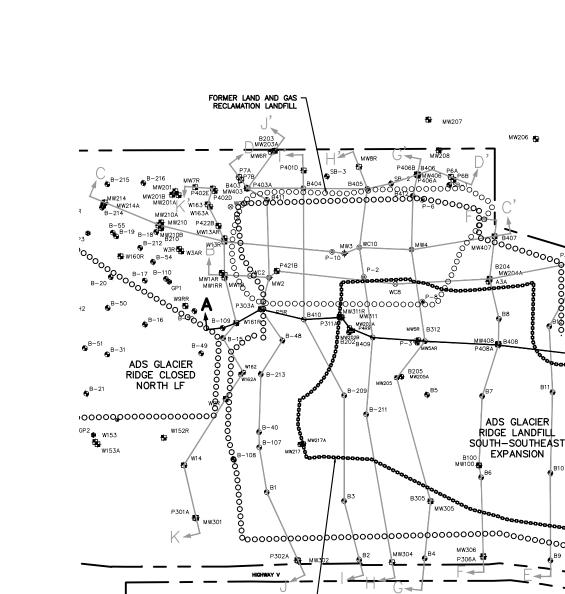
INCLUDES WEATHERED SHALE BEDROCK.

GENERALLY GRAY SAND AND GRAVEL (GP-GM, SP-SM, SW, GW) DEPOSITED BY GLACIAL MELTWATER. INCLUDES DISCONTINUOUS LENSES OF SILT/CLAY.

SHALE - MAQUOKETA FORMATION GREENISH GRAY SHALE WITH SILTY DOLOMITIC BEDS. CLAY COMPOSITION IS PRIMARILY ILLITE. LATE ORDOVICIAN AGE.

DOLOMITE - SINNIPEE GROUP

WHITE TO LIGHT GRAY MASSIVE DOLOMITE AND SHALY DOLOMITE; WITH CHERT. MIDDLE ORDOVICIAN AGE.



SCALE: 1" = 600'

CHECKED BY ___ APPROVED BY ___

cornerstone

ADVANCED DISPOSAL SERVICES GLACIER RIDGE LANDFILL DODGE COUNTY, WISCONSIN **FEASIBILITY REPORT SOUTH - SOUTHEAST VERTICAL EXPANSION GEOLOGIC CROSS SECTION A-A'**

PROJECT NO. 180250